



## Postgraduate Certificate

## Glaucoma and Pediatric Ocular Pathology

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

We b site: www.techtitute.com/in/medicine/postgraduate-certificate/glaucoma-pediatric-ocular-pathology

## Index

> 06 Certificate

> > p. 32





## tech 06 | Introduction

Children can also have suffer from the ocular pathologies and refractive defects typical in adults, as well as others that are more typical in childhood, such as strabismus and amblyopia. In all cases, early diagnosis and treatment, before the eye completes its development, is decisive, so that ocular defects can be corrected and do not leave lifelong consequences.

Strabismus is the most frequent motive for ocular surgery in children and amblyopia is the most frequent cause of early monocular vision loss. After the above pathologies, eye trauma is the next most significant cause of ocular morbidity in children.

According to INE data, there are about 250 new cases of infant glaucoma in Spain every year. Although it is not a very high incidence, its significant consequences for vision from the first months of life mean that immediate diagnosis and surgical treatment are essential.

If specialists appropriately refresh their knowledge of pediatric ocular pathologies, they will be to reinforce it and provide quality medical care to for children and their families.

This **Postgraduate Certificate in Glaucoma and Pediatric Ocular Pathology** comprises the most complete and up-to-date scientific program on the market. The most important features of the program include:

- Development of clinical cases presented by experts in pediatric ocular pathology. The graphic, schematic, and eminently practical contents with which they are created contain clinical information that is indispensable for professional practice.
- Diagnostic and therapeutic innovations for treating the main pathologies of the eye.
- It contains practical exercises where the self-evaluation process can be carried out to improve learning.
- An Interactive learning system based on algorithms for decision making in clinical situations involving pediatric patients with eye disorders.
- All of this will be complemented by theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- Content that is accessible from any fixed or portable device with an Internet connection.



Refresh your knowledge through the Postgraduate Certificate program in Glaucoma and Pediatric Ocular Pathology"



This Postgraduate Certificate may be the best investment you can make in selecting a refresher program for two reasons: in addition to updating your knowledge in Glaucoma and Pediatric Ocular Pathology, you will obtain an Postgraduate Certificate from TECH Technological University"

Its teaching staff includes renowned specialists in the field of ophthalmology, who bring the experience of their work in the country's leading medical centers to this training.

The multimedia content developed with the latest educational technology will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training program to train in real situations.

This program is designed around Problem Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this purpose, the physician will be assisted by an innovative interactive video system developed by renowned experts in the field of ophthalmology, and with extensive teaching experience.

Increase your decision-making confidence by updating your knowledge with this Postgraduate Certificate.

Incorporate the latest developments in glaucoma and pediatric ocular pathology into your daily practice and improve your patients' prognosis.



# 02 Objectives

The main objective of this program is to update specialists' knowledge of the latest advances in glaucoma and pediatric ocular pathology and so that they can carry out medical care with supporting scientific evidence and improve the quality of their medical practice.



## tech 10 | Objectives



## **General Objective**

• Update knowledge and facilitate the acquisition of advanced training in the diagnosis and treatment of glaucoma and ocular pathology in childhood, incorporating the latest advances in the discipline to improve the quality of daily medical practice.



A path to achieve training and professional growth that will propel you towards a greater level of competitiveness in the employment market"





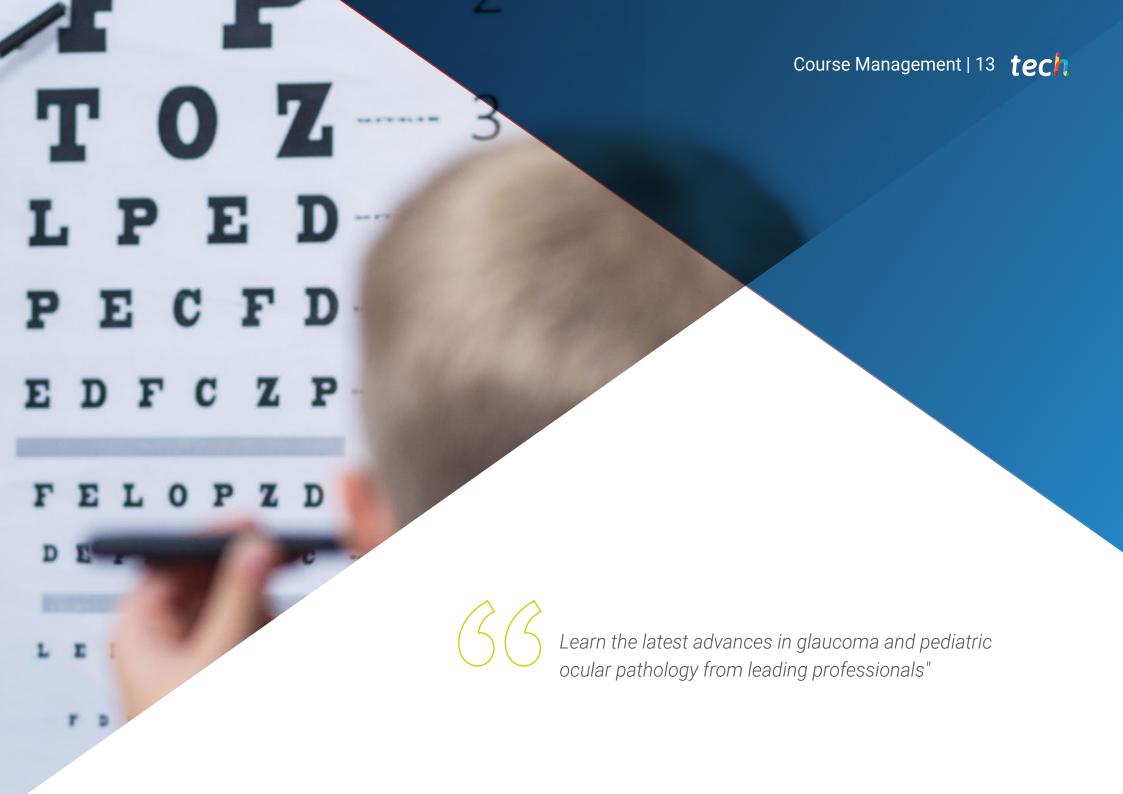
### Objectives | 11 tech



#### **Specific Objectives**

- Update knowledge on the physiological bases of glaucoma in order to guarantee that advances in ocular pathology are appropriately incorporated into daily medical practice.
- Address the classification and characteristics of the different types of glaucoma and describe the different diagnostic and therapeutic methods for glaucoma.
- Highlight the main features of intraocular pressure and pachymetry
- Identify advances in campimetry techniques to improve results in the early diagnosis of ocular pathology.
- Describe the therapeutic procedures of papilla and nerve fiber layer analysis.
- Determine the characteristics of Laser and Filtering Surgery treatments.
- Introduce new developments in valve surgery and cyclodestructive procedures.
- Explain the new perspectives for the future of glaucoma.
- Describe the main innovations in the surgical procedure recommended for infantile strabismus and indicate the potential problems of re-operations in children.
- Highlight advances in pediatric corneal pathology and anterior segment diseases.
- Determine the diagnostic and therapeutic procedures in the management of amblyopia in children and the new surgical techniques for strabismus.
- Update knowledge on pediatric neuro-ophthalmology in light of the latest advances in the specialty.
- Incorporate the correct management of congenital glaucoma in children in order to reduce the pathology's potential consequences.
- Describe how the differential diagnosis of leukocoria is used.
- Explain the new medical and surgical techniques for treating congenital cataract in children.
- Update knowledge on diagnostic and therapeutic procedures for nystagmus in children.
   Determine the correct use of botulinum toxin in pediatric strabismus pathology.





## tech 14 | Course Management

#### Management



#### Dr. Navea Tejerina, Amparo

- FISABIO-Ophthalmology Medical Director (FOM)
- Doctor of Medicine. Specialist in Ophthalmology.
- President of the FOM Teaching Commission. Head of the Retina Unit of the FOM, Head of the Ophthalmology Collection, FISABIO Biobank.
- Associate Professor in charge of Ophthalmology at UCH-CEU Medicine in Castellón and Valencia.
- Extensive experience in scientific publications, communications and presentations at conferences. Extensive experience in research work, projects, and thesis direction.
- Member of the Spanish Society of Ophthalmology (SEO), the American Academy of Ophthalmology (AAO) and the Association for Research in Vision and Opthalmology (ARVO). Sircova. IP OftaRed

#### **Academic Coordination**



#### Dr. Ruiz Moreno, José María

- Professor of Ophthalmology at the Faculty of Medicine at the UCLM (University of Castilla La Mancha).
- Head of Service of the Puerta de Hierro Hospital Majadahonda
- Medical Director of the Vissum Ophthalmologic Corporation
- Coordinator and Professor of the Doctorate Program in "Health Sciences" at UCLM.
- President of the Spanish Society of Retina and Vitreous (SERV
- Extensive experience in scientific publications, communications, and presentations at national and international conferences.
- Development of lines of research in: Age-Related Macular Degeneration (AMD) and Pathological Myopia (PM).
- Member of the Spanish Society of Ophthalmology (SEO), the American Academy of Ophthalmology (AAO) and the European Society of Retina Specialists (EURETINA). IP OftaRed

#### **Professors**

#### Dr. Abreu González, Rodrigo

- Ophthalmologist specializing in Retina and Vitreous at the Candelaria University Hospital
- Tenerife

#### Dr. Aguirre Balsalobre, Fernando

• Specialist in Ophthalmology. Doctor of Medicine, Cardenal Herrera University.

#### Dr. Alcocer Yuste, Pablo

 Specialist in Ophthalmology. Glaucoma specialist at FISABIO Medical Ophthalmology, Valencia, Spain.

#### Dr. Alió del Barrio, Jorge L.

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#### Dr. Amnesty, Alejandra

• Specialist in Ophthalmology. Ocular Plastic Surgery at Vissum, Madrid.

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Professor of Ophthalmology at the University of the Basque Country. ICQO Bilbao

#### Dr. Arias Barquet, Luis

• Head of the Ophthalmology Department. Bellvitge Hospital. Luis Arias Clinic.

#### Dr. Belda Sanchís, José

 Head of the Ophthalmology Department at Torrevieja University Hospital. Glaucoma Department at OFTALICA.

#### Dr. Benítez del Castillo, Javier

• Ophthalmology Specialist in El Puerto de Santa María and Jerez de la Frontera.

#### Dr. Cabanás Jiménez, Margarita

· Specialist in Ophthalmology, Virgen del Rocio University Hospital

#### Dr. Capella Elizalde, Ma José

• Ophthalmology Specialist in the Retina Unit at Barraquer Clinic, Barcelona, Spain.

#### Dr. Corsino Fernández-Vila, Pedro

· Head of the Ophthalmology Department at the Pontevedra University Hospital.

#### Dr. Davó Cabrera, Juan María

Specialist in Ophthalmology. FISABIO Medical Ophthalmology.

#### Dr. Del Buey Sayas, Ma Ángeles

• Specialist in Ophthalmology. Lozano-Blesa Hospital, Zaragoza.

#### Dr. Desco Esteban, Ma Carmen

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#### Dr. Dolz Marco, Rosa

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#### Dr. Donate López, Juan

 Ophthalmologist in charge of the Retina and Macular Pathology Unit at the San Carlos Clinical Hospital, Madrid.

#### Dr. Duch Tuesta, Susana

· Specialist in Ophthalmology. Specialist in Cataracts and Glaucoma.

#### Dr. España Gregori, Enrique

• Specialist in Ophthalmology. Orbital and Oculoplasty Unit at La Fe University and Polytechnic Hospital, Valencia, Spain.

## tech 16 | Course Management

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• Rheumatology Internist, Consultant Physician of the Autoimmune Diseases Service at the Hospital Clínic Barcelona.

#### Dr. Esteban Masanet, Miguel

· Head of the Ophthalmology Department at the Castellón Provincial Hospital.

#### Dr. Fandiño López, Adriana

• Specialist in Ophthalmology. FISABIO Medical Ophthalmology, Valencia, Spain.

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 Specialist in Ophthalmology. Cornea Unit FISABIO Medical Ophthalmology, Valencia, Spain

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#### Dr. Gallego Pinazo, Roberto

• Specialist in Ophthalmology at La Fe University Hospital. Valencia

#### Dr. García Sánchez, Juan

• Specialist in Ophthalmology at the San Juan Hospital, Alicante

#### Dr. Gargallo Benedicto, Amparo

• Specialist in Ophthalmology at the Clinical University Hospital of Valencia.

#### Dr. González López, Julio

• Ophthalmology Specialist, Glaucoma and Neuro-ophthalmology Unit, Ramón y Cajal Hospital, Madrid

#### Dr. González Valdivia, Hugo

• Specialist in Ophthalmology, Araba University Hospital

#### Dr. González Viejo, Inmaculada

• Specialist in Ophthalmology. Miguel Servet University Hospital. Zaragoza

#### Dr. Güerri Monclús, Noemí

• Specialist in Ophthalmology in Zaragoza

#### Dr. Hernández Pardines, Fernando

• Specialist in Ophthalmology at the San Juan Hospital, Alicante

#### Dr. Hernández, Pablo

· Specialist in Plastic, Esthetic, and Reconstructive Surgery.

#### Dr. Javaloy Estañ, Jaime

 Specialist in Ophthalmology. Refractive surgery clinic, refractive laser surgery, Ophthalmology Clinic and Baviera Clinic

#### Dr. Laiseca Rodríguez, Andrés

 Specialist in Ophthalmology. Specialist in Orbital and Plastic Surgery and Ocular Prosthesis, FISABIO Medical Ophthalmology (Valencia) and Laiseca Clinic (Madrid)

#### Dr. Laiseca Rodríguez, Dolores

 Specialist in Ophthalmology. Specialist in Orbital and Plastic Surgery and Ocular Prosthesis, FISABIO Medical Ophthalmology (Valencia) and Laiseca Clinic (Madrid).

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 Specialist in Ophthalmology. Glaucoma specialist at FISABIO Medical Ophthalmology, Valencia, Member of the Teaching Commission. Oftared Researcher

#### Dr. López Gálvez, Maribel

• Ophthalmologist Lead Researcher Retina IOBA, Valladolid. IP OftaRed

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• Specialist in Ophthalmology, La Fe Hospital, Valencia, Spain

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• Specialist in Ophthalmology at Hospital Gregorio Marañón, Madrid.

#### Dr. Martínez de la Casa, José María

• Professor of Ophthalmology at the Complutense University of Madrid, Glaucoma Specialist at the San Carlos Hospital, Oftared researcher.

#### Dr. Martínez Toldos, José Juan

• Head of the Ophthalmology Department at Elche University Hospital. Alicante.

#### **Dr. Mataix Boronat, Jorge**

• Specialist in Ophthalmology. Retina and Tumor Unit of FISABIO Medical Ophthalmology.

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#### Dr. Mesquida Febrer, Marina

• Specialist in Ophthalmology at Barnaclínic, Hospital Clínic group.



## tech 18 | Course Management

#### Dr. Montalbán Llamusi, Raúl

• Graduate in Optics and Optometry from the University of Alicante. Doctor by the University of Alicante.

#### Dr. Montero Moreno, Javier

• Head of the Ophthalmology Department. Pío Río Hortega University Hospital. Valladolid.

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· Specialist in Ophthalmology, San Carlos Clinical Hospital

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#### **Dr. Pastor Pascual, Francisco**

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#### Dr. Rial Álvarez, Lucía

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## Course Management | 19 tech

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· Ophthalmology Specialist in Alicante.

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#### Dr. Ruíz Mesa, Ramón

Oftalvist Seville

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• Specialist in Ophthalmology, Director at Oftalvist, Alicante, Spain.

#### Dr. Urcelay Segura, Chema

• Head of the Glaucoma Division, Department of Ophthalmology, Hospital Gregorio Marañón, Madrid.

#### Dr. Urcola Carrera, Aritz

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#### Dr. Vera Echevarría, Rebeca

• Specialist in Ophthalmology at Hospital Gregorio Marañón, Madrid.





## tech 22 | Structure and Content

#### Module 1. Glaucoma Update

- 1.1. Diagnosis I: Intraocular Pressure and Pachymetry
- 1.2. Diagnosis II: Angle Study: Gonioscopy and Other Methods
- 1.3. Diagnosis III: Campimetry
- 1.4. Diagnosis IV: Analysis of the Papilla and the Nerve Fiber Layer.
- 1.5. Pathophysiology and Classification of Glaucoma
- 1.6. Treatment I: Medical
- 1.7. Treatment II: Laser
- 1.8. Treatment III: Filtering Surgery
- 1.9. Treatment IV: Valvular Surgery and Cyclodestructive Procedures
- 1.10. New Perspectives in Glaucoma: The Future

#### Module 2. Update in Ophthalmopediatrics

- 2.1. Re-Operation for Strabismus
- 2.2. Management of Epiphora, Palpebral and Conjunctival-Corneal Pathology in Children
- 2.3. Amblyopia: Etiology, Diagnosis, Treatment, and Monitoring
- 2.4. Vertical Strabismus, Alphabetic Syndromes and Restrictive Syndromes: Stilling-Duane, Brown, Möebius, and Congenital Fibrosis.
- 2.5. Neuro-Ophthalmologic Pathology in Children
- 2.6. Congenital Glaucoma: Diagnosis, Treatment, and Monitoring
- 2.7. Differential Diagnosis of Leukocoria: Most Common Pathologies, Diagnosis and Treatment
- 2.8. Congenital Cataract Treatment: Etiology, Diagnosis and Treatment
- 2.9. Diagnosis and Treatment of Nystagmus
- 2.10. Botulinum Toxin in Strabology









A unique, key, and decisive training opportunity to book training opportunity to boost your professional development"





## tech 26 | Methodology

#### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- 4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





#### Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



### Methodology | 29 tech

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

This program offers the best educational material, prepared with professionals in mind:



#### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### **Surgical Techniques and Procedures on Video**

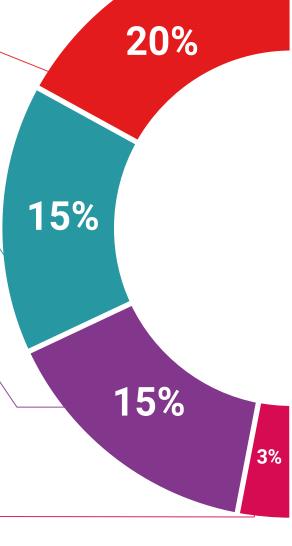
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### **Interactive Summaries**

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".





#### **Additional Reading**

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

#### **Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### **Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts.

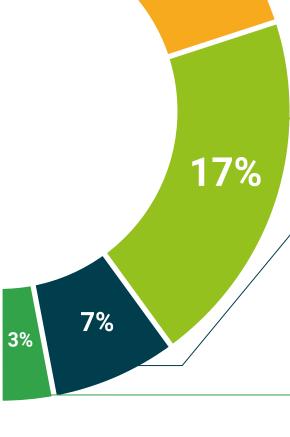
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.









## tech 34 | Certificate

This Postgraduate Certificate in Glaucoma and Pediatric Ocular Pathology

contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding Postgraduate Certificate issued by TECH Technological University via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Certificate in Glaucoma and Pediatric Ocular Pathology Official No of hours: 300 h.



, with identification number. For having passed and accredited the following program

#### POSTGRADUATE CERTIFICATE

#### Glaucoma and Pediatric Ocular Pathology

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

health

guarantee

Community

Lechnological

university

## university

# Postgraduate Certificate Glaucoma and Pediatric

Ocular Pathology

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

